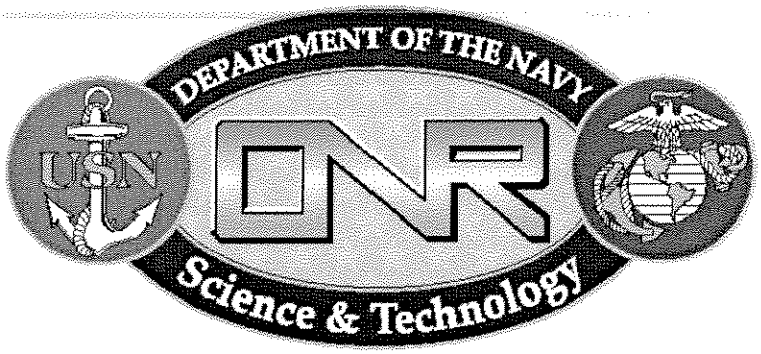


BROAD AGENCY ANNOUNCEMENT (BAA)

Sea Strike Science and Technology (S&T)

Transparent Urban Structures

INTRODUCTION

This publication constitutes a Broad Agency Announcement (BAA) as contemplated in Federal Acquisition Regulation (FAR) 6.102(d) (2). A formal Request for Proposal (RFP), solicitation, and/or additional information regarding this announcement will not be issued.

The Office of Naval Research (ONR) will not issue paper copies of this announcement. ONR reserves the right to select for award all, some or none of the proposals in response to this announcement. ONR provides no funding for direct reimbursement of proposal development costs. Technical and cost proposals (or any other material) submitted in response to this BAA will not be returned. It is the policy of ONR to treat all proposals as sensitive competitive information and to disclose their contents only for the purposes of evaluation.

It is anticipated that awards will take the form of Cost Plus Fixed Fee (CPFF) contracts. Therefore, all proposals submitted as a result of this announcement will fall under the purview of the Federal Acquisition Regulation (FAR).

I. GENERAL INFORMATION

1. Agency Name -

Office of Naval Research
One Liberty Center
875 North Randolph Street – Suite 1425
Arlington, VA 22203-1995

2. Research Opportunity Title -

Technology for Sea Strike Science and Technology (S&T) – Transparent Urban Structures

3. Program Name -

Sea Strike Science and Technology (S&T) - Transparent Urban Structures

4. Research Opportunity Number -

BAA 06-024

5. Response Date -

White Papers: 27 July 2006

Oral Presentations: 05-07 September 2006

Full Proposals: 29 September 2006

6. Research Opportunity Description

Synopsis: The Transparent Urban Structures (TUS) program will develop measurable advances in improving the collection, understanding, and dissemination of intelligence for the urban conflict. ONR seeks to develop technology which assists the warfighter in understanding the urban terrain of interest by detecting and classifying threats, both inside buildings and underground, and by maximizing situational awareness inside structures. The key focus of this program is to develop advanced technologies that make urban man-made structures transparent, thereby eliminating the safe harbor that buildings provide to hostile forces and their malicious activities.

This capability will be provided through basic phenomenological research, hardware and algorithm development of sense-through-wall technology that can directly support tactical expeditionary urban operations in the Global War on Terrorism (GWOT). Sense-through-wall systems resulting from this research will be integrated into emerging net-centric Navy and Marine Corps Command & Control and Intelligence, Surveillance, and Reconnaissance (C2 and ISR) acquisition programs through a Service Oriented Architecture (SOA).

Intelligence gained through use of technology developed in this program will allow the Joint Forces Command (USJFCOM) to incorporate facility network information into the analysis of hostile human networks.

This program builds upon and is complementary to the DARPA VisiBuilding and Army CERDEC-I2WD STTW programs.

6.1 Operational Requirements

Man-made structures favor asymmetric threats because the warfighter has a limited sensing capability into their interiors. Buildings provide excellent concealment from observation, ambush, and escape, as well as provide secure bases for enemy C2, weapons caches, and IED/WMD assembly. These man-made features have become "the high ground" in fourth-generation warfare, providing a significant strategic advantage. In addition, the urban conflict occurs in a region where distinguishing enemy and civilian personnel is extremely difficult. Therefore, determining the intent of building use and classifying activity of personnel located within man-made structures is vital to military urban operations and prevention of injury to innocent civilians.

6.2 Program Goals

The goal of the TUS program is to develop technologies that provide urban Intelligence Preparation of the Battlespace (IPB) and total situational awareness during and after urban conflict. As an outcome of this program, the appropriate actionable intelligence[1] will be provided to all levels of command involved in the urban conflict from the warfighter to

[1] Actionable Intelligence is intelligence that enables any layer of command to enjoy an advantage.

commanding officers. Thus, actionable intelligence motivates the need for high-fidelity sense-through-wall technology.

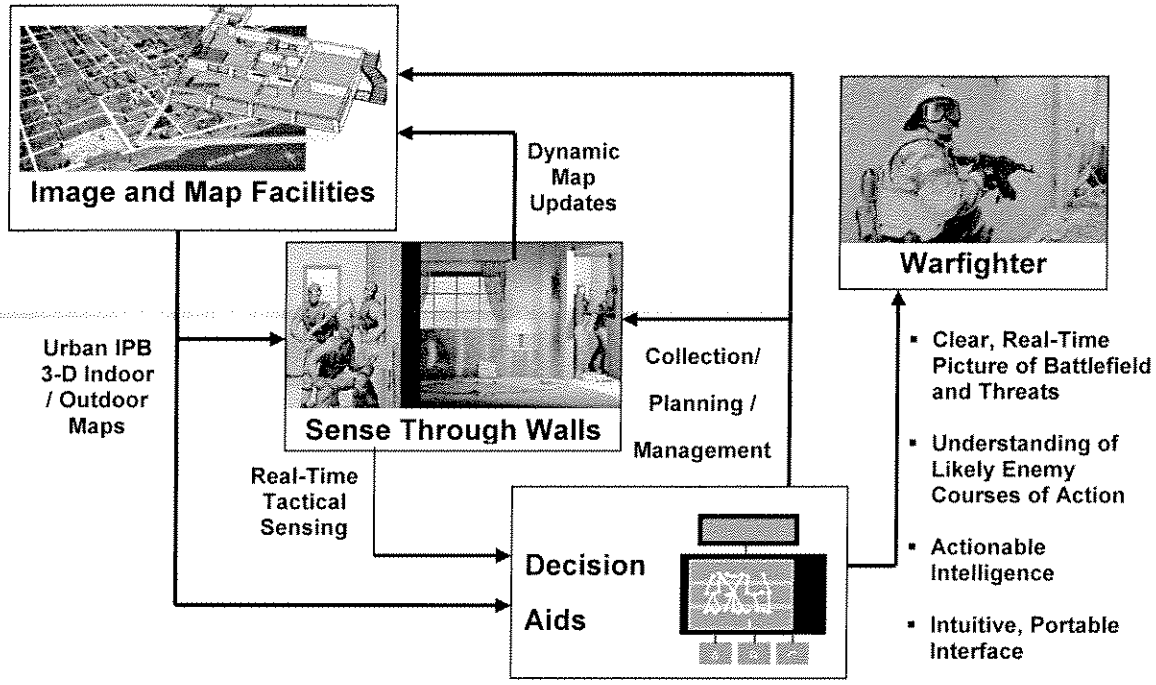
Sensor systems of interest must detect, identify, and classify man-made structures and enemy activity/weapons caches within structures, must detect underground and otherwise concealed facilities, must distinguish enemy from friendly from neutral, and must differentiate animate from inanimate objects. These systems must advance the technological state of the art to map urban terrain thoroughly, both inside and outside man-made structures and in three dimensions, so as to generate and update urban maps in real time. User interfaces to content must be intuitive, non-intrusive, and suitable for use during close combat.

6.3 Program Thrusts

The Transparent Urban Structures program has a primary focus to develop hardware and software technologies that will function with the Expeditionary Forces' Programs of Record (PoR) that field capabilities utilized by units at the tactical level. The program is structured with three principal thrusts:

- Develop sense-through-wall technologies which enable
    - behavior/activity classification by determining intent of personnel detected within structures and
    - standoff detection of weapons and/or explosives caches within structures.
- Create three-dimensional image and mapping capabilities of man-made structures accessible by the warfighter that are updatable in real time.
- Provide a suite of decision aids that
    - refines tactical awareness by fusing sense-through-wall content with all intelligence of suspect structures and
    - optimizes sensor planning and facility/behavior/activity classification by augmenting and exploiting contexts from all intelligence sources.

The diagram below depicts the relationship among the three thrusts. Integrating these three components of the TUS system will insure that fusion, visualization, resource management, and information dissemination engines run seamlessly from the individual Marine to the Commander of the Joint Task Force (CJTF).



6.4 Detailed Description

Products developed in this program may roll into Expeditionary Forces' Programs of Record in spirals for early transition. The following detailed thrust description is provided to give potential offerors insight into the scope of the problem and required technical effort.

Rendering Urban Structures Transparent

Small units engaged in urban conflict need organic sensing capabilities to support operations in and around buildings. Crucially needed systems must survey an urban region in order to identify which man-made structures harbor hostile forces. Suspect structures are identified by using all forms of prior knowledge of building use from blueprint records to context augmented from all intelligence sources. Once a candidate structure has been located, whether above or below ground, this system must determine the intent, whether friend or foe or neutral, of the personnel detected within its walls. Intent may be understood by the presence of weapons and explosives, either carried on an individual or stockpiled in caches within the structure in close proximity to the detected personnel. Concomitant with this need to determine intent, knowledge of building floor plans and architectural features is crucial in order to commence military operations on suspect structures. This program addresses the urgent development of such a TUS capability by supporting efforts to mature key technologies required for an operationally useful system.

Overall sense-through-wall systems should be unattended, hand-held, small UxV-mounted, or HMMWV-mounted that operate at a standoff range of tens of meters. To date, community investment in unattended and small UxV-mounted sensors has been modest. Sensors for airborne platforms will also be considered.

It is the intention of this program to fuse all available information relating a particular structure of interest. Sense-through-wall content from ground sensors will be cohered with content obtained from airborne sensors and other intelligence sources.

To determine building use and the intent of personnel detected within structures, it is expected that a suite of sensor modalities and fusion of multi-modality data will be needed. A suite of sensors may be a collection of different sensing modalities such as radio frequency (RF), gamma-ray, x-ray, neutron, acoustic, terahertz (THz), etc. Therefore, offerors should achieve form factors (size, weight, and volume) consistent with the maturity of the underlying modality considered. Regardless of the proposed system's targeted platform, (unattended, hand-held, airborne, etc.), the system should demonstrate potential for transition to expeditionary forces.

Sensing systems considered for this program must be developed in light of a fundamental phenomenological understanding of the selected modality. This program places particular emphasis on a critical examination of sense-through-wall phenomenology for systematic development of agile sensor modalities and algorithms. Phenomenologies to be understood include: the interactions among the illumination source, the objects of interest, and the sensor; the propagation characteristics of signals through diverse media; the impact of background noise; near-field effects; dispersive and scattering losses; and multipath.

Sensors should be agile to dynamic warfare conditions by having the ability to modify their parameters to enhance sensing sensitivity. Agility here assumes the ability of the sensor to modify in real time its parameters such as modality, number/type/position of sources and detectors, polarity, operating bands and wavelengths, waveforms, etc. Questions offerors should answer include:

- How should sensor agility be utilized to exploit the phenomenology of the scene adaptively in order to achieve high image resolution and understanding?
- For a particular modality, what sensor settings can and should be changed at each iteration of scene optimization?

Systems need to have the capability to identify construction features such as walls, windows, and stairwells, providing a three-dimensional map of structures. The capability to detect the presence of underground structures such as sewers, building-to-building connections, and basements is highly desired.

Moving and stationary personnel detection/classification within man-made structures can be performed with any promising method including Doppler, human signature analysis, and biometrics like respiration and posture sway. Differentiation of animate from inanimate objects and human from non-human is highly desirable. Use of unattended sensors, left behind to report intelligence covertly, should be considered.

Also considered in this program are passive detection/classification systems that exploit the inherent illumination of a geographic region by cellular and satellite communication infrastructures to obtain context of building usage and intent.

Systems should perform behavior and activity classifications by determining intent of personnel detected within structures. Intent can be understood by proximity of detected personnel to armaments or weapons/explosives caches. Thus systems should provide standoff detection of

hand-held firearms and weapons and/or explosives caches within structures. Potential methods for identifying weapons include high-resolution imaging from multistatic geometries providing angle diversity and pulsed ultrawideband sensors. Alternatively, or in addition to, chemical, spectral, or nuclear signature-detection methods may provide ways to pinpoint the presence of concealed weapons.

All sense-through-wall intelligence is processed to convert raw data into optimum own-course-of-action decisions. A suite of decision aids are to be developed to enhance inter-operability, visualization, interpretation/analysis, and sensor planning and management. In addition these algorithms will perform positive identification of targets and determine whether targets are armed, automatically generate indications and warnings, detect "seen but unobserved" behavior, and disseminate content to an intuitive, three dimensional situational awareness tool. The critical objective is to propagate in real time the appropriate information to all levels of command from warfighter to commanders.

Summary:
A total solution incorporating a suite of sensors to detect both personnel intent and concealed weapons/explosives within buildings is preferred. However, an offeror may submit a separate proposal for one or more of the three thrust descriptions provided under Section 6.3 of this BAA. Partial solutions will be considered and include:

- classifying activity of personnel detected within structures;
- detection of weapons/explosives within man-made structures;
- signature analysis of humans both moving and stationary;
- development of high-resolution through-the-wall imaging methods;
- development of decision aid products.

Offerors of partial solutions need to specify clearly how system addresses the overall goal of determining the building intent and classifying activity within buildings.

7. Point(s) of Contact -

Questions of a technical nature shall be directed to the cognizant Science and Technical Point of Contact, as specified below.

Mr. Martin Kruger
Program Officer
Command and Control and Combat System, ONR 30
Office of Naval Research
One Liberty Center
875 North Randolph Street – Suite 1425
Arlington, VA 22203-1995
E-mail Address: krugerm@onr.navy.mil

Questions of a business nature shall be directed to the cognizant Contract Specialist, as specified below.

Mr. Chris Williamson
Contract Specialist, ONR 253
Office of Naval Research
One Liberty Center
875 North Randolph Street – Suite 1425
Arlington, VA 22203-1995
Telephone Number: (703) 696-2972
Facsimile Number: (703) 696-0993
E-mail Address: williac@onr.navy.mil

Questions shall be submitted in writing by electronic mail. Questions and responses will be posted at www.fedbizopps.gov, http://www.onr.navy.mil/02/baa/, and https://www.onr.navy.mil/transparent_urban_structures; no other e-mail responses will be provided. Responses will not be made to questions presented by other means, for example, telephone calls and fax messages. No meetings will occur between potential offerors and the Science and Technology Point of Contact.

8. Instrument Type(s) -

It is anticipated that all awards resulting from this announcement will be contracts, particularly cost plus fixed fee (CPFF). Contract awards will fall under the purview of the Federal Acquisition Regulation (FAR) and the Defense Federal Acquisition Regulation Supplement (DFARS).

9. Catalog of Federal Domestic Assistance (CFDA) Numbers -

N/A

10. Catalog of Federal Domestic Assistance (CFDA) Titles -

N/A

II. AWARD INFORMATION

Award Information is as follows:

- Total Amount of Funding Available: $10M is available in FY07 (Budget Category 6.2 and 6.3). ONR plans to issue an annual BAA for this program. The total funding for the program is anticipated to be $33M during FY07-FY11.
- Anticipated Number of Awards: 5-10
- Average Award Range: $1M to $2.5M

- Proposed work should be structured for a one to three year period. Multiple-year proposals shall include a base performance period of twelve months with one or two 12-month options.

Proposals that build on current or previous DoD work are encouraged, for example, DARPA VisiBuilding and Army CERDEC-I2WD STTW. Offerors enhancing work performed under other ONR or DoD projects must clearly identify the point of departure, what existing work will be brought forward, and what new work will be performed under this BAA.

III. ELIGIBILITY INFORMATION

This solicitation is open to all responsible sources. The Decision Aids topic under Paragraph 6.3 above may stimulate proposals that may be subject to export control restrictions.

Historically Black Colleges and Universities (HBCU) and Minority Institutions (MI) are encouraged to submit proposals and join others in submitting proposals. However, no portion of this BAA will be set aside for HBCU and MI participation due to the impracticality of reserving discrete or severable areas of Sea Strike Science and Technology for exclusive competition among these entities. Independent organizations and teams are encouraged to submit proposals in any or all areas. However, offerors must be willing to cooperate and exchange software, data and other information in an integrated program with other contractors, as well as with system integrators selected by ONR.

Navy Warfare Centers, Federally Funded Research and Development Centers (FFRDCs), and Government Labs (U.S. National Laboratory or a Navy Lab) are not eligible to bid on BAA 06-024. However, teaming arrangements are allowed.

IV. APPLICATION AND SUBMISSION INFORMATION

1. Application and Submission Process

(A) Industry Day Briefing: ONR conducted an Industry Day Briefing for potential offerors in the afternoon on Thursday, 06 July 2006. The announcement for this briefing was posted to www.fedbizopps.gov on June 15, 2006.

(B) White Papers: White Papers are encouraged prior to submitting a full proposal. The due date for white papers is no later than 2:00 p.m. (Eastern Daylight Time) on Thursday, 27 July 2006.

White papers will be evaluated to determine whether to encourage the offeror to make an oral presentation to a panel of Government evaluators. The process for oral presentations is described below. Selection of white papers considered of "particular value" will be announced on or about Friday, 11 August 2006 by email. However, any such encouragement does not assure a subsequent award. Any offeror may submit a full proposal even if its white paper was not identified as being of "particular value."

(C) Oral Presentations: Oral presentations are tentatively planned for 05-07 September 2006. The Office of Naval Research will schedule an oral presentation for those offerors notified by e-mail that their white paper technologies appear to be of "particular value" to the Navy. Any offeror whose white paper was not determined to be of "particular value" to the Navy or an interested party who did not submit a white paper by the July deadline can contact the Program Officer (see paragraph 7) to arrange to make an oral presentation along with the other scheduled offerors.

A detailed format for the presentation will be provided in the e-mail invitation. Each presentation will be no longer than thirty (30) minutes in duration. An additional ten (10) minutes will be allowed for questions (if any) from the panel of Government reviewers. Those offerors whose technology is still considered as having "particular value" to the Navy will be encouraged to submit detailed technical and cost proposals. However, such encouragement after oral presentations does not assure a subsequent award. The Office of Naval Research will not reimburse travel costs and time for potential bidders to brief their proposals.

(D) Full Proposals: An offeror may submit a full proposal without submitting a white paper or making an oral presentation.

The due date for receipt of full proposals is 2:00 p.m. (Eastern Daylight Time) on Friday, 29 September 2006. It is anticipated that final selections will be made in October 2006. As soon as the final proposal evaluation process is completed, each offeror will be notified via e-mail of its selection or non-selection for an award. Proposals exceeding the page limit may not be evaluated.

2. Content and Format of White Papers/Full Proposals

The white papers, oral presentations, and full proposals submitted under this solicitation must be unclassified. Submissions will be protected from unauthorized disclosure in accordance with FAR 15.207, applicable law, and DoD/DON regulations. Offerors are expected to mark each page of their submission that contains proprietary information.

White Paper Format

- Paper Size – 8.5 x 11 inch paper
- Margins – 1" inch
- Spacing – single or double-spaced
- Font – Times New Roman, 12 point
- White papers are limited to ten (10) pages in length, as described below in the "White Paper Content" section.
- Copies – one (1) original, five (5) hard copies, and one electronic copy on CD-ROM (in Microsoft® Word or Excel 97 compatible or .PDF format).
- The White Paper should reference BAA 06-024 and identify the applicable program thrust area(s).

Full Proposal Format – Volume 1 - Technical and Volume 2 - Cost Proposal

- Paper Size – 8.5 x 11 inch paper
- Margins – 1 inch
- Spacing – single or double-spaced
- Font – Times New Roman, 12 point
- Enclosures -- Each copy and the original should be free of any notebook or other enclosing material.
- Number of Pages – Volume 1 is limited to no more than 39 pages. Volume 2 has no page limitations. Limitations within sections of the Technical Proposal are indicated in the individual descriptions shown below. The cover page, table of contents, abstract, assertion of data rights, and resumes are excluded from the page limitations. Full Proposals exceeding the page limit may not be evaluated.
- Copies – one (1) original, 5 copies, and one electronic copy on a CD-ROM in either Microsoft Word or Adobe ".pdf" format.

White Paper Content

- **Cover Page:** The Cover Page shall be labeled "PROPOSAL WHITE PAPER" and shall include the BAA number, proposed title, technology interest areas addressed, Offeror's administrative and technical points of contact, with telephone numbers, facsimile numbers, and e-mail addresses, and shall be signed by an authorized officer. This shall be one (1) page.
- **Abstract:** A very brief description of the technology including goals and objectives and technology areas to be addressed. This section shall be no more than one (1) page.
- **Technical Concept:** A description of the technology innovation, the Program thrusts addressed (described in Section I paragraph 6.3), and technical risk areas. This section may be six (6) pages or fewer. Include a detailed listing of the technical tasks/subtasks organized by year. Relate the product that results from the task/subtask and briefly state metrics that will be met as a result of the task/subtask. In addition, it should include a Statement of Operation Utility that clearly states what the proposed effort does for the warfighter. Not to exceed two (2) pages within the six (6) pages of the Technical Concept Section. A statement should also be made under each task where Government facilities are proposed to be utilized.
- **Deliverables:** A detailed description of the results and products to be delivered. This section shall be no more than one (1) page in length.
- **Costs:** A one (1) page summary of costs segregated by both task and year. The research will begin on/about 01 January 2007.

Full Proposal Content

The Cost Proposal shall be separate and shall not be included with the Technical Proposal. The Cost proposal CD-ROM shall be clearly labeled and separate from the Technical Proposal CD-ROM.

Volume 1: Technical Proposal

Volume 1 of the Full Proposal shall include the following sections, each starting on a new page. Sections not included in the page limitations are annotated below. Please pay attention to the page limitations for each section as described below. The page limitation for the technical proposal is thirty nine (39) pages.

1) Cover Page: (Not included in page limitations.) This should include the words "Technical Proposal" and the following:
   a) BAA number;
   b) Title of Proposal;
   c) Technology interest area to which the proposal is applicable and component of the Technology interest area if the proposal is limited to a Technology interest areas component;
   d) Identity of prime Offeror and complete list of subcontractors, if applicable;
   e) Technical contact (name, address, phone/fax, electronic mail address);
   f) Administrative/business contact (name, address, phone/fax, electronic mail address);
   g) Duration of effort and gross proposed cost by Government fiscal year (differentiate basic effort and any options); and
   h) The cover page must be signed and dated.
2) Table of Contents: (Not included in page limitations.) Section, title and page numbers are required.
3) Abstract: (Not included in page limitations.) A brief description of the proposal including goals and objectives and technology areas to be addressed.
4) Executive Summary: (Not to exceed three (3) pages.)
5) Statement of Work: (Not to exceed twenty-five (25) pages.) An unclassified Statement of Work (SOW) clearly detailing the scope and objectives of the effort and the technical approach. The proposed SOW will be incorporated as an attachment to the resultant award instrument. To this end, each proposal must include a severable self-standing SOW without any proprietary restrictions, which can be attached to the contract award. Include a detailed listing of the technical tasks/subtasks organized by year. Identify the product that results from the task/subtask, and make reference to metrics that will be met as a result of the task/subtask. In presenting the technical concept, the proposal should explain how the technology proposed is relevant to the operational context described in Section 6.1 of the BAA. Optional tasks should be indicated separately.
6) Project Schedule and Milestones: (One (1) page) A summary of the schedule of events and milestones, with experimentation milestones clearly indicated.
7) Assertion of Data Rights: (Not included in page limitations.) Include here a summary of any proprietary rights asserted to pre-existing results, prototypes, or systems supporting and/or necessary for the use of the research results, and/or prototype. Any data rights asserted in other parts of the proposal must be cross-referenced here. If there are proprietary rights, the Offeror must explain how these affect its ability to deliver research data, subsystems and toolkits for integration into Sea Strike.

Additionally, Offerors must explain how the Program goals are achievable in light of these proprietary limitations. If there are no claims of proprietary rights in pre-existing data, this section shall consist of a statement to that effect. Use the format in DFARS 252.227-7013/7014 for any assertions.

8) Deliverables: (Not to exceed two (2) pages.) A detailed description of the results and items to be delivered, including experimentation articles. A list of sample deliverables is contained in Section VI, paragraph 2.
9) Statement of Operational Utility: (Not to exceed two (2) pages.) A Statement of Operational Utility describes what the proposed effort does for the warfighter. It includes a detailed plan for experimentation to assess the functionality and usefulness of the key products of this effort during experimentation. The offeror should provide specific information about its approach to experimentation in laboratory and operational environments, including both use of technology by military personnel and data collection and analysis in the context of experimentation hypotheses. Exit criteria should be stated in this section, and the plan should detail deliverables and how they meet exit criteria.
10) Proposer Qualifications: (Not to exceed two (2) pages.) A discussion of previous accomplishments and work in this, or closely related, areas, and the qualifications of the investigators. The proposal must clearly state the amount of time that is planned to be allocated by all key personnel to the proposed effort. Key personnel resumes shall be attached to the proposal. Resumes will not count toward the page limitations.
11) Management Approach: (Not to exceed three (3) pages.) The management plan should show the significant milestones of the technology development process. It should show Operational Utility assessment events. It should include obligation to provide reporting (Section VI, Para 2) and attend meetings (Section VII, Para 3). Other Agencies: (Not to exceed one (1) page.) Include the name(s) of any other agencies and points of contact to which the proposal has also been submitted.

Volume 2: Cost Proposal

The Cost Proposal shall be separate and not included with the Technical Proposal. There is no page limitation on the cost proposal. The options must be separately priced.

- Cover Page: The words "Cost Proposal" should appear on the cover page in addition to the following information:
    1) BAA number;
    2) Title of Proposal;
    3) Identity of prime Offeror and complete list of subcontractors, if applicable;
    4) Technical contact (name, address, phone/fax, electronic mail address);
    5) Administrative/business contact (name, address, phone/fax, electronic mail address);
    6) Duration of effort (separately price the basic effort and the option(s));
    7) Names, phone number and e-mail addresses of DCMA and DCAA Points of Contacts; and
    8) Whether the proposal includes DCAA-approved Forward Pricing Rate Agreement (FPRA) direct and indirect rates.

- Part 1: This part shall contain a detailed breakdown of all costs by cost category by calendar or fiscal year. The following costs shall be included:
    1) Direct Labor – Individual labor category or person, with associated labor hours and unburdened direct labor rates.
    2) Indirect Costs – Fringe Benefits, Overhead, G&A, COM, etc. (Must show base amount and rate.)
    3) Travel – Number of trips, destination, duration, etc. Provide a justification if proposed costs for meetings and travel exceed 3% of total annual costs.
    4) Subcontract – The offeror will submit a copy of the subcontractor's fixed price or cost proposal. For a cost subcontract, the offeror will submit a subcontract proposal as detailed as the offeror's cost proposal. This proposal may be provided in a sealed envelope with the offeror's cost proposal or may be obtained from the subcontractor at a later date prior to award.
    5) Consultant – Provide consultant agreement or other document which verifies the proposed loaded daily/hourly rate.
    6) Materials – Specifically itemized by cost. An explanation of any estimating factors, including their derivation and application, shall be provided. Where possible, indicate purchasing method (competition, engineering estimate, market survey, etc.)
    7) Other Directs Costs, particularly any proposed items of equipment or facilities. Equipment and facilities generally must be furnished by the contractor/recipient. (Justifications must be provided when Government funding for such items is sought.) Include a brief description of the Offeror's procurement method to be used (competition, engineering estimate, market survey, etc.)
    8) Fee/Profit including fee percentage.

- Part 2: This part shall contain cost breakdown by task/sub-task using the same task numbers identified in the Statement of Work. When options are contemplated, options must be separately identified and priced by task/sub-task corresponding to the same task numbers in the Statement of Work.

3. Significant Dates and Times

Significant dates and times associated with this BAA are show in the table below.

Event	Date	Local Eastern Time
Pre-Proposal Conference/Industry Day	06 July 2006	1:00 PM
White Papers Due	27 July 2006	2:00 PM
Notification of Initial Navy Evaluations of White Papers	11 August 2006*	N.A.

Oral Presentation of Proposal	05-07 September 2006*	TBD
Notification of Navy Evaluations of Oral Presentations	15 September 2006*	N.A.
Full Proposals Due	29 September 2006*	2:00 PM
Notification of Selection for Award	October 2006*	N.A.
Contract Awards	December 2006*	N.A.

***These dates are estimates as of the date of this announcement.**

4. Submission of Late Proposals

Any proposal, modification or revision that is received at the designated Government office after the exact time specified for receipt of proposals is "late" and will not be considered unless it is received before award is made, the Contracting Officer determines that accepting the late proposal would not unduly delay the acquisition **AND**:

(a) If it was transmitted through an electronic commerce method authorized by the announcement, it was received at the initial point of entry to the Government infrastructure not later than 5:00 p.m. one working day prior to the date specified for receipt of proposals; or

(b) There is acceptable evidence to establish that it was received at the Government installation designated for receipt of proposals and was under the Government's control prior to the time set for receipt of proposals; or

(c) It was the only proposal received.

However, a late modification of an otherwise timely and successful proposal, that makes its terms more favorable to the Government, will be considered any time it is received and may be accepted.

Acceptable evidence to establish the time of receipt at the Government installation includes the time/date stamp of that installation on the proposal wrapper, other documentary evidence of receipt maintained by the installation, or oral testimony or statements of Government personnel.

If an emergency or unanticipated event interrupts normal Government processes so that proposals cannot be received at the Government office designated for receipt of proposals by the exact time specified in the announcement, urgent Government requirements preclude amendment of the announcement closing date, the time specified for receipt of proposals will be deemed to be extended to the same time of day specified in the announcement on the first work day on which normal Government processes resume.

The Contracting Officer must promptly notify any offeror if its proposal, modifications or revision was received late, and must inform the offeror whether its proposal will be considered.

Note: Due to changes in security procedures since September 11, 2001, the time required for hard-copy written materials to be received at the Office of Naval Research has increased. Thus it is recommended

that any hard-copy proposal be mailed several days before the deadline established in the solicitation so that it will not be received late and thus be ineligible for award consideration.

5. Address for the Submission of White Papers, Oral Presentation Material, and Full Proposals

Offerors shall make submissions to the Office of Naval Research at the address specified below:

Office of Naval Research
One Liberty Center
875 North Randolph Street – Suite 1160
Arlington, VA 22203-1995
Attn: Mr. Martin Kruger, ONR Code 30, (703) 696-5349

NOTE: WHITE PAPERS OR PROPOSALS SENT BY FAX OR E-MAIL WILL NOT BE CONSIDERED.

V. EVALUATION INFORMATION

1. Evaluation Criteria

The following evaluation criteria apply to the white paper, oral presentations and full proposal submissions. Proposals will be selected through a technical, scientific, and business decision process with technical and scientific considerations being more important than cost. Criteria A-E are listed in descending order of priority. Even though cost is of less importance than any of the technical factors, it will not be ignored. The degree of its importance will increase with the degree of equality of the proposals in relation to the other factors on which selection is to be based, or when the cost is so significantly high as to diminish the value of the technical superiority to the Government. The sub-criteria, i.e., the numbered items within each of the lettered factor paragraphs, are of equal importance.

A. Overall scientific and technical merits of the proposal

   1. The degree of innovation and ability to deliver technology that will improve expeditionary force warfighting capabilities described in Section I, paragraph 6.4.

   2. The soundness of technical concept.

   3. The offeror's awareness of the state of the art and understanding of the scope of the problem and the technical effort needed to address it.

   4. Risk management in demonstrating objectives including structuring of the overall demonstration approach to control risk.

B. Expeditionary warfighter and naval relevance, anticipated contributions of the proposed technology to Distributed Operations, FORCEnet and network centric warfare operations. Also of importance is the extent to which the Government will

have at least Government purpose technical data rights and similar rights to computer software in order to transition the technology.

C. Offeror's capabilities, related experience, and past performance, including the qualifications, capabilities and experience of the proposed principal personnel.

1. The quality of technical personnel proposed is consistent with the work proposed.

2. The offeror's experience in relevant efforts with similar resources is demonstrated.

3. The ability to manage the proposed effort is well established.

D. Management Plan. The Management Plan is not required in the white paper. The Management Plan is required for oral presentations and the Full Proposal and will be evaluated in accordance with the following criteria:

1. Plan is in milestone format with succinct factual description of how achievement of milestones will be managed.

2. Relationship between cost and milestone achievement is defined.

3. Estimate of technical, schedule and cost risk is stated with risk management plan provided.

E. The realism of the proposed cost.

1. Total cost relative to benefit.

2. Realism of cost levels for facilities and staffing.

Socio-Economic Merits - For proposed awards made as contracts over $500,000 to large businesses, the socio-economic merits of each proposal will be evaluated based on the extent of the offeror's commitment in providing meaningful subcontracting opportunities (to the maximum extent practicable) for small businesses, HUBZone small businesses, small disadvantaged businesses, woman-owned small businesses, veteran-owned small businesses, service disabled veteran small businesses, historically black colleges and universities, and minority institutions.

2. Evaluation Panel

Technical and cost proposals submitted under this BAA will be protected from unauthorized disclosure in accordance with FAR 3.104-5 and 15.207. Government technical experts drawn from the Naval operational community, Office of Naval Research, the United States Marine Corps, the Naval systems commands, Navy warfare centers, the Naval Research Laboratory (NRL), and other Naval and Defense activities/agencies will evaluate the white papers, oral presentations, and full proposals.

The Government may use selected support personnel as subject-matter expert technical consultants to assist in providing both technical expertise and administrative support regarding

white papers, presentations, and full proposals ensuing from this announcement. However, proposal selection and award decisions are solely the responsibility of Government personnel. Each support contractor's employee having access to technical and cost proposals submitted in response to this BAA will be required to sign a non-disclosure agreement prior to receipt of any proposal submissions to protect proprietary and source-selection information.

VI. AWARD ADMINISTRATION INFORMATION

1. Administrative Requirements

- The North American Industry Classification System (NAICS) code – The North American Industry Classification System (NAICS) code for this announcement is 541710 with a small business size standard of 500.
- CCR - Successful offerors not already registered in the Central Contractor Registry (CCR) will be required to register in CCR prior to award of any contract. Information on CCR registration is available at **http://www.onr.navy.mil/02/ccr.htm**.
- Certifications – Proposals should be accompanied by a completed certification package which can be accessed on the ONR Home Page at Contracts & Grants. The contractor must complete both the Online Representations and Certifications Application (ORCA) and DFARS and Contract Specific Representations and Certifications, which can be accessed at http://www.onr.navy.mil/02/rep_cert.asp.
- Subcontracting Plans - Successful contract proposals that exceed $500,000.00, submitted by all but small business concerns, will be required to submit a Small Business Subcontracting Plan in accordance with FAR 52.219-9, prior to award. This requirement also applies to non-profits, including educational institutions.
- This acquisition potentially involves data that is subject to export control laws and regulations. The following clause will be incorporated into any resultant contract where export control is an issue:

NAVAIR 5252.227-9507 NOTICE REGARDING THE DISSEMINATION OF EXPORT-CONTROLLED TECHNICAL DATA (JAN 1992)

(a) Export of information contained herein, which includes release to foreign nationals within the United States, without first obtaining approval or license from the Department of State for items controlled by the International Traffic in Arms Regulations (ITARS), or the Department of Commerce for items controlled by the Export Administration Regulations (EAR), may constitute a violation of law.

(b) For violation of export laws, the contractor, its employees, officials or agents are subject to:

(1) Imprisonment and/or imposition of criminal fines; and

(2) Suspension or debarment from future Government contracting actions.

(c) The Government shall not be liable for any use or misuse of the information, technical data or specifications in this contract. It shall not be liable for any patent infringement or

contributory patent infringement. The Government neither warrants the adequacy nor the completeness of the information, technical data or specifications in this contract.

(d) The contractor shall include the provisions of paragraphs (a) through (c) above in any subcontracts awarded under this contract.

- Offerors should state that their proposals will be valid for 180 days from submission.

2. Deliverables

The following is a sample of deliverables that could be required under a research effort. The following deliverables, primarily in contractor format, are anticipated as necessary. However, specific deliverables should be proposed by each offeror and finalized with the contracting agent.

- Software
- Algorithms with documentation
- Smart agents with documentation
- Source code
- Prototypes
- Tool design
- Analysis documents
- Design documents
- Working models
- Executable code
- Modeling and simulation tools
- Metadata
- Fusion tools
- Sensors
- Reports and technical items resulting from meetings.
- Execution plan
- Technical progress reports at regular time intervals (monthly or quarterly, but not both) as specified in the award document, including detailed technical data, algorithms and software as appropriate
- Financial progress reports at regular intervals as specified in the award document
- Presentation material(s)
- Other documentation or reports, such as publications
- Final technical report

VII. OTHER INFORMATION

1. Project Meetings & Reviews

Individual reviews between the ONR sponsor and the performer will be held as needed. Status reviews may also be held to provide a forum for reviews of the latest results from experiments and any other incremental progress. These meetings will be held at various sites throughout the country. For costing purposes, Offerors should assume that 40% of these meetings will be at or

near ONR, Arlington VA and 60% at other contractor or Government facilities. Interim meetings are likely, but these will be accomplished via video telephone conferences, telephone conferences, or via web-based collaboration tools.

Provide a justification if proposed costs for meetings and travel exceed 3% of total annual costs.

2. Government Property/Government Furnished Equipment (GFE) and Facilities

Each offeror must provide a very specific description of any equipment/hardware that it needs to acquire to perform the work. This description should indicate whether or not each particular piece of equipment/hardware will be included as part of a deliverable item under the resulting award. Also, this description should identify the component, nomenclature, and configuration of the equipment/hardware proposed to be purchased for this effort. It is the Government's desire to have the contractors purchase the equipment/hardware for deliverable items under their contract. The purchase on a direct reimbursement basis of special test equipment or other equipment that is not included in a deliverable item will be evaluated for allowability on a case-by-case basis.

3. Security Classification

In order to facilitate intra-program collaboration and technology transfer, awardees will work at the unclassified level to the maximum extent possible.

If awardees use unclassified data in their deliveries and experimentation regarding a potential classified project, they should use methods and conventions consistent with those used in classified environments. Such conventions will permit the various subsystems and the final system to be more adaptable in accommodating classified data in the transition system.

4. Department of Defense High Performance Computing Program

The DoD High Performance Computing Program (HPCMP) furnishes the DoD S&T and DT & E communities with use-access to very powerful high performance computing systems. Awardees of ONR contracts, grants, and assistance instruments may be eligible to use HPCMP assets in support of their funded activities if ONR Program Officer approval is obtained and if security/screening requirements are favorably completed. Additional information and an application may be found at http://www.hpcmo.hpc.mil/.